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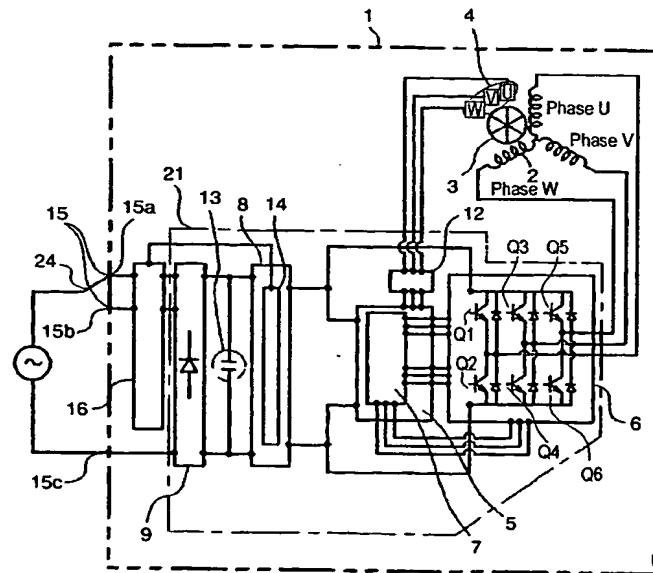
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**(54) Title: BRUSHLESS DC MOTOR COUPLED DIRECTLY TO AC SOURCE AND ELECTRIC APPARATUS USING THE SAME MOTOR**



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**(57) Abstract:** A brushless DC motor is disclosed, in which a commercial AC source is full-wave rectified by rectifier (9) and then converted into a generally flat and low DC voltage not more than 45V by DC voltage converter (8). The low DC voltage is applied in a full-wave driving method to stator coil (2) via inverter circuit (6) formed of switching elements in a bridge configuration. This structure allows obtaining the brushless DC motor coupled directly to the AC source, and the torque ripples and uneven rotation of the motor are suppressed.



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*